

<u>S</u> † <u>Nam</u> <u>Query</u>	<u>Hit</u> <u>Count</u>	<u>S</u> † <u>Name</u> result set
side by side		
<i>DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>		
<u>L8</u> resistant adj2 L adj lysine same (corynebacter\$ or brevibacter\$ or Escherichia or bacillus)	8	<u>L8</u>
<u>L7</u> resistant adj5 L adj lysine same corynebacter\$	13	<u>L7</u>
<u>L6</u> resistant same L adj lysine same corynebacter\$	110	<u>L6</u>
<i>DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=OR</i>		
<u>L5</u> soybean adj hydrolysate same L adj lysine	7	<u>L5</u>
<i>DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>		
<u>L4</u> corynebacter\$ same L adj lysine same 10 adj (g or gm or gram\$)	5	<u>L4</u>
<i>DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=OR</i>		
<u>L3</u> 4601982.PN.	2	<u>L3</u>
<u>L2</u> 5989875.PN.	2	<u>L2</u>
<i>DB=USPT; PLUR=YES; OP=OR</i>		
<u>L1</u> 6040160.PN.	1	<u>L1</u>

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**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 4 of 4 returned.**☐ 1. Document ID: US 20030049804 A1

L6: Entry 1 of 4

File: PGPB

Mar 13, 2003

PGPUB-DOCUMENT-NUMBER: 20030049804

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030049804 A1

TITLE: *Corynebacterium glutamicum* genes encoding metabolic pathway proteins

PUBLICATION-DATE: March 13, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Pompejus, Markus	Freinsheim		DE	
Kroger, Burkhard	Limburgerhof		DE	
Schroder, Hartwig	Nussloch		DE	
Zelder, Oskar	Speyer		DE	
Haberhauer, Gregor	Limburgerhof		DE	
Kim, Jun-Won	Seoul		KR	
Lee, Heung-Shick	Seoul		KR	
Hwang, Byung-Joon	Seoul		KR	

US-CL-CURRENT: [435/115](#), [435/183](#), [435/252.3](#), [435/320.1](#), [435/69.1](#), [536/23.2](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC
Draw	Desc	Image									

☐ 2. Document ID: US 6534315 B1

L6: Entry 2 of 4

File: USPT

Mar 18, 2003

US-PAT-NO: 6534315

DOCUMENT-IDENTIFIER: US 6534315 B1

TITLE: Yeast transformation cassette

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWC
Draw Desc	Image										

☐ 3. Document ID: US 6261825 B1

L6: Entry 3 of 4

File: USPT

Jul 17, 2001

US-PAT-NO: 6261825

DOCUMENT-IDENTIFIER: US 6261825 B1

**\*\* See image for Certificate of Correction \*\***

TITLE: Production of amino acids using auxotrophic mutants of methylotrophic bacillus

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWC
Draw Desc	Image										

☐ 4. Document ID: US 6110713 A

L6: Entry 4 of 4

File: USPT

Aug 29, 2000

US-PAT-NO: 6110713

DOCUMENT-IDENTIFIER: US 6110713 A

TITLE: Production of glutamic acid and lysine using auxotrophic mutants of Bacillus methanolicus

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWC
Draw Desc	Image										

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Terms	Documents
L4 and raffin\$	4

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Terms	Documents
L2 and raffinat\$	1

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IBM Technical Disclosure Bulletins

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*DB=USPT,PGPB,JPAB,EPAB,DWPT; PLUR=YES; OP=OR*

<u>L9</u>	L2 and raffinat\$	1	<u>L9</u>
<u>L8</u>	L3 and isomaltose	0	<u>L8</u>
<u>L7</u>	L3 same isomaltose	0	<u>L7</u>
<u>L6</u>	L4 and raffin\$	4	<u>L6</u>
<u>L5</u>	L4 same raffin\$	0	<u>L5</u>
<u>L4</u>	L3 same (coli or corynebacter\$ or brevibacter\$ or bacillus)	81	<u>L4</u>
<u>L3</u>	L2 same mutant\$	494	<u>L3</u>
<u>L2</u>	(overproduc\$ or overexpress\$) same (amino adj acid or lysine or threonine)	2365	<u>L2</u>
<u>L1</u>	raffin\$ adj5 resistanc\$ same bacter\$	3	<u>L1</u>

END OF SEARCH HISTORY

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L1: Entry 38 of 47

File: JPAB

Dec 24, 1980

PUB-NO: JP355165798A

DOCUMENT-IDENTIFIER: JP 55165798 A

TITLE: PREPARATION OF L-HISTIDINE

PUBN-DATE: December 24, 1980

## INVENTOR-INFORMATION:

NAME

COUNTRY

TSUCHIDA, TAKAYASU

SANO, TAKANOSUKE

## ASSIGNEE-INFORMATION:

NAME

COUNTRY

AJINOMOTO CO INC

APPL-NO: JP54073053

APPL-DATE: June 12, 1979

US-CL-CURRENT: 435/107; 435/849

INT-CL (IPC): C12P 13/24

## ABSTRACT:

PURPOSE: To prepare efficiently a great amount of L-histidine, by cultivating aerobically a bacterium having specific properties, belonging to the genus Escherichia, in a liquid medium so that L-histidine is formed in a medium.

CONSTITUTION: A bacterium belonging to the genus Escherichia, having 2-thiazolealanine and 1,2,4-triazolealanine resistance, and L-histidine producing ability, is cultivated in a liquid medium to form and accumulate L-histidine, which is collected. Escherichia coli AJ11375 FERM-P5035, Escherichia coli AJ11376 FERM-P5036, etc. may be cited as the bacterium. A carbohydrate, organic acid, alcohol, etc. may be cited as a carbon source of the culture medium: ammonium sulfate, etc., as a nitrogen source. The cultivation is preferably carried out in a pH of 5&sim;9.20 at 20&sim;45°C under aerobic conditions for 20&sim;96hr.

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L1: Entry 44 of 47

File: DWPI

Dec 24, 1986

DERWENT-ACC-NO: 1987-039018

DERWENT-WEEK: 198706

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TITLE: L-phenylalanine and L-tyrosine prodn., used for additives of food - comprises culturing methylomonas SP-20 culture medium with meth as carbon source

## PATENT-ASSIGNEE:

ASSIGNEE

CODE

SHOWA DENKO KK

SHOW

PRIORITY-DATA: 1985JP-0136124 (June 24, 1985)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 61293381 A	December 24, 1986		005	

## APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP 61293381A	June 24, 1985	1985JP-0136124	

INT-CL (IPC): C12N 1/20; C12P 13/22; C12R 1/26

ABSTRACTED-PUB-NO: JP 61293381A

## BASIC-ABSTRACT:

Prodn. of L-phenylalanine and L-tyrosine is effected by culturing methylomonas SD-20 with methanol assimilation and resistance to beta-thienylalanine and phenylhydroxamate in a culture medium with methanol as a carbon source to accumulate L-phenylalanine and L-tyrosine and collecting these objective substances. Pref. Methylomonas SD-20 is cultured in a culture medium composed of 5 ml of methanol, 1 g of ammonium sulphate, 5 g of potassium phosphate, 6 g of potassium diphosphate, 0.2 g of magnesium sulphate, 2 mg of ferrous sulphate, 1 mg of MnSO<sub>4</sub>·4-6H<sub>2</sub>O, 15 micrograms of biotin, 250 micrograms of thiamin hydrochloride, and 1 l of water, at pH 6.8, 20-40 deg.C for 2-5 hrs. while shaking; and after collecting and washing the bacteria it is again suspended in a phosphoric acid buffer soln. of 0.1 M. N-methyl-N'-nitroguanidine is added to the soln. so that its final density in the soln. becomes 50-400 ppm and the soln. is shaken at 20-40 deg.C for 3-30 mins. After collecting and washing the bacteria, they are plated on a culture medium contg. 500-2000 ppm of beta-thienylalanine, pref. 800-1000 ppm. It is

standing-cultured at 20-40 deg.C for 3-7 days and the growing colonies are collected to culture them on the culture medium mentioned above at 20-40 deg.C for 24-70 hrs. L-phenylalanine and L-tyrosine in the culture soln. are measured by amino acid analyser to screen the bacteria capable of producing the amino acids. Good strains are selected from thereby obtd. beta-thienylalanine resistant strains and they are given the treatment of mutation. From the mutants with phenylalanine hydroxamate resistance, the bacteria capable of producing the amino acids are screened. Thereby the objective SD-20 is prepd.

USE/ADVANTAGE - It is possible to mass-produce L-phenylalanine and L-tyrosine, which are widely used for additives of foods, or drugs, from an economical source, methanol, in commercial practice.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TER MS: PHENYLALANINE TYROSINE PRODUCE ADDITIVE FOOD COMPRISE CULTURE  
METHYLOMONAS SPECIES CULTURE MEDIUM METHO CARBON SOURCE

DERWENT-CLASS: B05 D16 E14

CPI-CODES: B10-B02E; D05-C01; D05-H08; E10-B02D2; E10-B02D3;

CHEMICAL-CODES:

Chemical Indexing M2 \*01\*

Fragmentation Code

G010 G100 H1 H100 H181 J0 J011 J1 J171 M280  
M312 M321 M332 M343 M349 M371 M391 M414 M510 M520  
M531 M540 M720 M800 M903 M904 M910 N131 N425 N512  
N513 Q220 Q233

Specfic Compounds

03941P

Chemical Indexing M2 \*02\*

Fragmentation Code

G013 G100 H1 H100 H181 H4 H401 H441 H8 J0  
J011 J1 J171 M280 M312 M321 M332 M343 M349 M371  
M391 M414 M510 M520 M531 M540 M720 M800 M903 M904  
M910 N131 N425 N512 N513 Q220 Q233

Specfic Compounds

04099P

Chemical Indexing M3 \*01\*

Fragmentation Code

G010 G100 H1 H100 H181 J0 J011 J1 J171 M280  
M312 M321 M332 M343 M349 M371 M391 M414 M510 M520  
M531 M540 M720 M800 M903 M904 M910 N131 N425 N512  
N513 Q220 Q233

Specfic Compounds

03941P

Chemical Indexing M3 \*02\*

Fragmentation Code

G013 G100 H1 H100 H181 H4 H401 H441 H8 J0



J011 J1 J171 M280 M312 M321 M332 M343 M349 M371  
M391 M414 M510 M520 M531 M540 M720 M800 M903 M904  
M910 N131 N425 N512 N513 Q220 Q233  
Specific Compounds  
04099P

UNLINKED-DERWENT-REGISTRY-NUMBERS: 0243P; 1372P

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1987-016325

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L1: Entry 47 of 47

File: DWPI

May 28, 1976

DERWENT-ACC-NO: 1976-53249X

DERWENT-WEEK: 197628

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TITLE: L-aspartic acid prodn. - from 6-dimethylaminopurine resistant Brevibacterium or Corynebacterium bacterium

PATENT-ASSIGNEE:

ASSIGNEE

CODE

AJINOMOTO KK

AJIN

PRIORITY-DATA: 1974JP-0134878 (November 22, 1974)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 51061689 A	May 28, 1976		000	
FR 2292041 A	July 23, 1976		000	
GB 1490008 A	October 26, 1977		000	
JP 78020593 B	June 27, 1978		000	
US 4000040 A	December 27, 1976		000	

INT-CL (IPC): C07C 101/22; C12D 13/06

ABSTRACTED-PUB-NO: JP 51061689A

BASIC-ABSTRACT:

A 6-dimethylaminopurine-resistant L-aspartic acid-producing bacterium belonging to the genus Brevibacterium or Corynebacterium is aerobically cultured in a nutrient medium to produce and accumulate L-aspartic acid in the culture medium. Microorganism used include Brevibacterium flavum AJ-3859 (FERM-P 2799) obtd. by mutation of Brevibacterium flavum ATCC 14067. Pref. culture is at 24-37 degrees C for 2-7 days. The culture medium contains a carbon source e.g., glucose, an inorganic or organic nitrogen source and 1-8 g./dl. of ammonium sulphate.

TITLE-TERMS: ASPARTIC ACID PRODUCE RESISTANCE BREVIBACTERIUM CORYNEBACTERIUM BACTERIUM

DERWENT-CLASS: B05 D16 E16

CPI-CODES: B10-B02J; D05-C01; E10-B02D;

CHEMICAL-CODES:

Chemical Indexing M2 \*01\*

Fragmentation Code

H1 J1 M312 M332 M321 M280 M343 M380 M391 H181  
J172 J173 M620 N130 M510 M520 M530 M540 M720 M416  
M902

Chemical Indexing M3 \*02\*

Fragmentation Code

H1 J1 M312 M332 M321 M280 M343 M380 M391 H181  
J172 J173 M620 N130 N330 N340 M510 J0 M520 J012  
M530 M540 M720 M416 M902

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Terms	Documents
ammonia adj (sulfate or sulphate) same resistanc\$ same bacteri\$	47

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DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR

L1ammonia adj (sulfate or sulphate) same resistanc\$  
same bacteri\$

47

L1

END OF SEARCH HISTORY

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L4: Entry 3 of 5

File: JPAB

May 9, 2000

PUB-NO: JP02000125893A

DOCUMENT-IDENTIFIER: JP 2000125893 A

TITLE: METHOD FOR FERMENTATION PRODUCTION OF L-AMINO ACID

PUBN-DATE: May 9, 2000

## INVENTOR-INFORMATION:

NAME

COUNTRY

BECKER, ULRICH

PETER, HEIDI DR

MORBACH, SUSANNE DR

WALGER, ILONA DR

KRAEMER, REINHARD DR

PFEFFERLE, WALTER DR

## ASSIGNEE-INFORMATION:

NAME

COUNTRY

DEGUSSA HUELS AG

APPL-NO: JP11303952

APPL-DATE: October 26, 1999

INT-CL (IPC): C12 P 13/08; C12 P 13/06

## ABSTRACT:

PROBLEM TO BE SOLVED: To obtain the subject compound with controlling the influence of cell of high osmotic pressure by adding L-proline to a liquid medium containing a well-known C source and N-source at an early stage of fermentation and culturing a coryneform bacterium capable of producing and discharging an L-amino acid.

SOLUTION: In this method for a fermentation production of an L-amino acid by culturing a coryneform bacterium (e.g. *Corynebacterium glutamicum* ATCC 13,032, etc.), capable of producing and discharging the L-amino acid, a fermentation liquid medium containing well-known C and N sources is mixed with L-proline in an amount of 0.01-10 g/L based on the fermentation liquid medium preferably at an early fermentation stage, the fermentation is performed in a minimum culture solution and/or in a limited culture solution to give the objective L-amino acid by a method for controlling the influence of cell of high osmotic pressure.

L-Lysine, L-isoleucine, L-threonine, L-valine, etc., can be produced as the L-amino acid.

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L4: Entry 5 of 5

File: DWPI

May 11, 1985

DERWENT-ACC-NO: 1985-150334

DERWENT-WEEK: 198525

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TITLE: L-Arginine prodn. by fermentation - using thiazolyl alanine-resistant brevibacterium or corynebacterium microorganisms

PATENT-ASSIGNEE:

ASSIGNEE

CODE

AJINOMOTO KK

AJIN

PRIORITY-DATA: 1983JP-0190192 (October 12, 1983)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 60083593 A	May 11, 1985		002	

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP 60083593A	October 12, 1983	1983JP-0190192	

INT-CL (IPC): C12P 13/10; C12R 1/13

ABSTRACTED-PUB-NO: JP 60083593A

BASIC-ABSTRACT:

Prodn. comprises growing 2-thiazolyl alanine-resistant Brevibacterium or Corynebacterium microorganisms which demand L-lysine and collecting L-arginine from the culture medium. In an example, the culture medium contains 10 g/dl glucose, 7g/dl (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>, 0.1 g/dl KH<sub>2</sub>PO<sub>4</sub>, 0.04 g/dl MgSO<sub>4</sub>.7H<sub>2</sub>O, 1mg/dl FeSO<sub>4</sub>.H<sub>2</sub>O, 1mg/dl MnSO<sub>4</sub>.4H<sub>2</sub>O, 100 micro g/1 thiamine-HCl, 100 micro g/1 biotin, 60mg/dl (as total N) of soybean protein hydrosate, and 5g.dl calcium carbonate (pH:7.0), and cultivation was at 31.5 deg.C for 4 days with shaking. The amt. of L-arginine accumulated in the culture liq. was 1.9, 3.0 and 3.2 g/dl for B.flavum AJ11169 (F6257-P4161,-P7269 and P7271) respectively.

ADVANTAGE - Parent strains from which mutants are derived include Breybacterium flavum ATCC14067,

Brev. lactofermentum ATCC 13869 and Corynebacterium Glutamicum ATCC 13032.

Higher productivity of L-arginine is achieved. (Corrected abstract)

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: ARGININE PRODUCE FERMENTATION THIAZOLYL ALANINE RESISTANCE  
BREVIBACTERIUM CORYNEBACTERIUM MICROORGANISM

DERWENT-CLASS: B05 D16 E16

CPI-CODES: B10-A17; D05-C01; E10-A17;

CHEMICAL-CODES:

Chemical Indexing M2 \*01\*

Fragmentation Code

H1	H100	H181	J0	J011	J1	J171	K0	L2	L250
M280	M314	M321	M332	M343	M349	M381	M391	M416	M620
M720	M800	M903	M910	N131	N261	N332	N425	N513	Q233

Chemical Indexing M3 \*01\*

Fragmentation Code

H1	H100	H181	J0	J011	J1	J171	K0	L2	L250
M280	M314	M321	M332	M343	M349	M381	M391	M416	M620
M720	M800	M903	M910	N131	N261	N332	N425	N513	Q233

UNLINKED-DERWENT-REGISTRY-NUMBERS: 1655S; 1661P

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1985-065674



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L5: Entry 7 of 7

File: DWPI

Aug 6, 1974

DERWENT-ACC-NO: 1974-89443V

DERWENT-WEEK: 197452

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TITLE: Microbial prodn of L-lysine - using a mutant resistant to S-2-aminoethyl-L-cysteine and requiring isoleucine

PATENT-ASSIGNEE:

ASSIGNEE

CODE

AJINOMOTO KK

AJIN

PRIORITY-DATA: 1972JP-0124604 (December 12, 1972)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 49081586 A	August 6, 1974		000	

ABSTRACTED-PUB-NO: JP 49081586A

BASIC-ABSTRACT:

L-Lysine (I) was produced from a mutant of *Brevibacterium* and *Corynebacterium* which is resistant against S-2-aminoethyl-L-cysteine and requires isoleucine. *B. flavum* AJ-3419 (FERM-P 1708) and No. 211 (parent) and *C. glutamicum* AJ-3420 (FERM-P 1709) and No. 3305 (parent) were cultured with shaking at  $\geq 1$  degrees for 72 hrs. in a medium (pH 7.0) contg. glucose 10, (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub> 5, KH<sub>2</sub>PO<sub>4</sub> 0.1 MgSO<sub>4</sub>·7H<sub>2</sub>O 0.04, soybean hydrolysate 1.0, and CaCO<sub>3</sub> 5%, plus 2 ppm of Fe<sup>++</sup> and Mn<sup>++</sup>, biotin 50, and thiamine HCl 200 ug/l. Prodns. of (I) were 3.5, 1.7, 3.7, and 2.0 g/dl, resp. (I) was adsorbed on Amberlite IR-120 (H+) from the culture supernatant (1 l.) of AJ-3419 or AJ-3420 and eluted with 3% NH<sub>4</sub>OH. (I) was crystd. as (I)-HCl·2H<sub>2</sub>O from the concd. eluate by addn. of HCl and cooling; 25.3 and 24.2 g, resp.

TITLE-TERMS: MICROBE PRODUCE LYSINE MUTANT RESISTANCE AMINOETHYL CYSTEINE  
REQUIRE ISOLEUCINE

DERWENT-CLASS: B05 D16 E16

CPI-CODES: B10-B01B; D05-C01; E10-B01B;

**CHEMICAL-CODES:**

## Chemical Indexing M2 \*01\*

## Fragmentation Code

H1 J1 M315 M332 M321 M280 M343 M380 M391 H182  
H183 J171 M620 N130 M510 M520 M530 M540 M720 M416  
M902

## Chemical Indexing M3 \*02\*

## Fragmentation Code

H1 J1 M315 M332 M321 M280 M343 M380 M391 H182  
H183 J171 M620 N130 N310 N330 N340 M510 J0 M520  
M530 M540 M720 M416 M902

**WEST**

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L7: Entry 8 of 13

File: JPAB

Jan 19, 1988

PUB-NO: JP363012292A

DOCUMENT-IDENTIFIER: JP 63012292 A

TITLE: PRODUCTION OF L-LYSINE

PUBN-DATE: January 19, 1988

## INVENTOR-INFORMATION:

NAME

COUNTRY

YONEKURA, HIDEAKI

HIRAO, TOSHIHIKO

AZUMA, TOMOKI

NAKANISHI, TOSHIHIDE

## ASSIGNEE-INFORMATION:

NAME

COUNTRY

KYOWA HAKKO KOGYO CO LTD

APPL-NO: JP61156775

APPL-DATE: July 3, 1986

INT-CL (IPC): C12P 13/08

## ABSTRACT:

PURPOSE: To produce the titled compound useful as a food additive, etc., on an industrial scale at a low cost, by culturing a microbial strain belonging to glutamic acid-producing coryne-form strain resistant to  $\beta$ -naphthoquinoline and capable of producing L-lysine in a medium and separating the product from the cultured liquid.

CONSTITUTION: A microbial strain belonging to glutamic acid-producing coryne- form strain resistant to  $\beta$ -naphthoquinoline and capable of producing L-lysine [e.g. Corynebacterium glutamicum H-4412 (FERM BP-1069), etc.] is cultured in a medium containing glucose, etc., as carbon source, urea, etc., as nitrogen source and potassium phosphate, etc., as inorganic component. The produced and accumulated L-lysine is separated from the cultured liquid.

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L7: Entry 11 of 13

File: DWPI

Jul 17, 1982

DERWENT-ACC-NO: 1982-71170E

DERWENT-WEEK: 198234

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TITLE: L-Lysine prepn. - by culturing adenine- or thymine-resistant Brevibacterium or Corynebacterium  
and removing L-lysine produced

PATENT-ASSIGNEE:

ASSIGNEE

CODE

AJINOMOTO KK

AJIN

PRIORITY-DATA: 1980JP-0185674 (December 29, 1980)

PATENT-FAMILY:

PUB-NO

PUB-DATE

LANGUAGE

PAGES

MAIN-IPC

JP 57115185 A

July 17, 1982

004

INT-CL (IPC): C12P 13/08; C12R 1/13

ABSTRACTED-PUB-NO: JP 57115185A

BASIC-ABSTRACT:

L-lysine is produced by culturing a variant strain of Brevibacterium or Corynebacterium genus having resistance to adenine or thymine and L-lysine-producing power, and removing the L-lysine obtd. and accumulated in the culture medium.

Variant strains of Brevibacterium or Corynebacterium genus may be obtd. by subjecting Brevibacterium Corynebacterium microorganism to usual variation-processing such as treatment with N-methyl-N'-nitro-N-nitrosoguanidine and selecting the strains which have obtd. adenine or thymine-resistance.

Parent strains are pref. coryneformglutamic acid producing bacteria, e.g. Brevibacterium lactofermentum ATCC 13869, Brevebacterium flavum ATCC 14067, Corynebacterium glutamicum ATCC 13032 etc. Variants are e.g. Corynebacterium glutamicum AJ 11649 (FERM-P 5830) O Brevibacterium lactofermentum AJ 11651 (FERM-P 5832).

TITLE-TERMS: LYSINE PREPARATION CULTURE ADENINE THYMINE RESISTANCE  
BREVIBACTERIUM CORYNEBACTERIUM REMOVE LYSINE PRODUCE

DERWENT-CLASS: B05 D16 E16

CPI-CODES: B10-B01B; D05-C01; E10-B01C;

CHEMICAL-CODES:

Chemical Indexing M2 \*01\*

Fragmentation Code

H1 H101 H182 J0 J011 J1 J171 M280 M315 M321  
M332 M343 M349 M381 M391 M416 M620 M720 M903 M910  
N131 N513 Q232

Chemical Indexing M3 \*01\*

Fragmentation Code

H1 H101 H182 J0 J011 J1 J171 M280 M315 M321  
M332 M343 M349 M381 M391 M416 M620 M720 M903 M910  
N131 N513 Q232

UNLINKED-DERWENT-REGISTRY-NUMBERS: 1655P

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L7: Entry 13 of 13

File: DWPI

DERWENT-ACC-NO: 1971-80866S

DERWENT-WEEK: 197151

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TITLE: L-lysine prodn - by microbiological process under aerobic conditions

PATENT-ASSIGNEE:

ASSIGNEE

CODE

AJINOMOTO KK

AJIN

PRIORITY-DATA: 1969JP-0021509 (March 20, 1969)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
GB 1258380 A			000	
CA 937183 A			000	
JP 73028078 B			000	
US 3707441 A			000	

INT-CL (IPC): C07C 101/00

ABSTRACTED-PUB-NO: GB 1258380A

BASIC-ABSTRACT:

Process for the prepn. of L-lysine for use as a food additive comprises culturing, under aerobic conditions, a s-(2-aminoethyl)-L-cysteine resistant, L-lysine-producing strain of Brevibacterium, Corynebacterium, Microbacterium or Micrococcus in a medium contg. is not <1 assimilable C source, a nitrogen source and required growth promoting and inorganic constituents. The pH is maintained at 5-9 and the L-lysine produced is recovered from the medium.

The process is inexpensive and uses readily available raw materials.

TITLE-TERMS: LYSINE PRODUCE MICROBIOLOGICAL PROCESS AEROBIC CONDITION

DERWENT-CLASS: B05 D16 E16

CPI-CODES: B10-B01B; B12-J01; B12-L09; D03-G01; D03-H01; D05-C01; E10-B01B;

CHEMICAL-CODES:

Chemical Indexing M2 \*01\*

Fragmentation Code

H1 J1 H182 H183 J171 M620 N130 M510 M520 M530  
M540 M720 P710 R002 M416 M901

Chemical Indexing M3 \*02\*

Fragmentation Code

H1 J1 H182 H183 J171 M620 N130 M510 M520 M530  
M540 M720 M416 M901

**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 11 through 13 of 13 returned.**☐ **11. Document ID: JP 57115185 A**

L7: Entry 11 of 13

File: DWPI

Jul 17, 1982

DERWENT-ACC-NO: 1982-71170E

DERWENT-WEEK: 198234

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TITLE: L-Lysine prepn. - by culturing adenine- or thymine-resistant Brevibacterium or Corynebacterium and removing L-lysine produced

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC
Draw.	Desc.	Image									

☐ **12. Document ID: FR 2497231 A JP 57115186 A JP 87036673 B US 4411997 A**

L7: Entry 12 of 13

File: DWPI

Jul 2, 1982

DERWENT-ACC-NO: 1982-68653E

DERWENT-WEEK: 198233

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TITLE: Prodn. of L-lysine by fermentation - using ethylene glycol resistant mutants of Brevibacterium or Corynebacterium

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC
Draw.	Desc.	Image									

☐ **13. Document ID: GB 1258380 A CA 937183 A JP 73028078 B US 3707441 A**

L7: Entry 13 of 13

File: DWPI

DERWENT-ACC-NO: 1971-80866S



DERWENT-WEEK: 197151

COPYRIGHT 2003 DERWENT INFORMATION LTD

TITLE: L-lysine prodn - by microbiological process under aerobic conditions

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC
Draw	Desc	Image									

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Terms	Documents
resistant adj5 L adj lysine same corynebacter\$	13

**Display Format:**

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**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 10 of 13 returned.**☐ 1. Document ID: US 20020151700 A1

L7: Entry 1 of 13

File: PGPB

Oct 17, 2002

PGPUB-DOCUMENT-NUMBER: 20020151700

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020151700 A1

TITLE: Method to monitor a fermentation process

PUBLICATION-DATE: October 17, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Farwick, Mike	Bielefeld		DE	
Brehme, Jennifer	Bielefeld		DE	
Hermann, Thomas	Bielefeld		DE	
Bathe, Brigitte	Salzkotten		DE	
Marx, Achim	Bielefeld		DE	
Mockel, Bettina	Dusseldorf		DE	
Rieping, Mechthild	Bielefeld		DE	
Ermantraut, Eugen	Jena		DE	
Ellinger, Thomas	Jena		DE	
Huthmacher, Klaus	Gelnhausen		DE	
Pfefferle, Walter	Halle		DE	

US-CL-CURRENT: 536/23.2, 435/287.2, 435/6

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>
<a href="#">Draw Desc</a>	<a href="#">Image</a>								

[KIMC](#)☐ 2. Document ID: US 4861722 A

L7: Entry 2 of 13

File: USPT

Aug 29, 1989

US-PAT-NO: 4861722

DOCUMENT-IDENTIFIER: US 4861722 A

TITLE: Coryneform bacteria carrying recombinant plasmids and their use in the fermentative production of L-lysine

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWC
Draw Desc	Image									

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☐ 3. Document ID: US 4560654 A

L7: Entry 3 of 13

File: USPT

Dec 24, 1985

US-PAT-NO: 4560654

DOCUMENT-IDENTIFIER: US 4560654 A

TITLE: Method for producing L-lysine by fermentation

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWC
Draw Desc	Image									

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☐ 4. Document ID: US 4452890 A

L7: Entry 4 of 13

File: USPT

Jun 5, 1984

US-PAT-NO: 4452890

DOCUMENT-IDENTIFIER: US 4452890 A

TITLE: Method of producing L-threonine by fermentation

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWC
Draw Desc	Image									

---

☐ 5. Document ID: US 4411997 A

L7: Entry 5 of 13

File: USPT

Oct 25, 1983

US-PAT-NO: 4411997

DOCUMENT-IDENTIFIER: US 4411997 A

TITLE: Method for producing L-lysine by fermentation

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KMIC

☐ 6. Document ID: US 3905867 A

L7: Entry 6 of 13

File: USPT

Sep 16, 1975

US-PAT-NO: 3905867

DOCUMENT-IDENTIFIER: US 3905867 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Method of producing L-lysine by fermentation

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KMIC

☐ 7. Document ID: JP 04166092 A

L7: Entry 7 of 13

File: JPAB

Jun 11, 1992

PUB-NO: JP404166092A

DOCUMENT-IDENTIFIER: JP 04166092 A

TITLE: PRODUCTION OF L-LYSINE BY FERMENTATION

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KMIC

☐ 8. Document ID: JP 63012292 A

L7: Entry 8 of 13

File: JPAB

Jan 19, 1988

PUB-NO: JP363012292A

DOCUMENT-IDENTIFIER: JP 63012292 A

TITLE: PRODUCTION OF L-LYSINE

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KMIC

☐ 9. Document ID: JP 55009785 A

L7: Entry 9 of 13

File: JPAB

Jan 23, 1980

PUB-NO: JP355009785A

DOCUMENT-IDENTIFIER: JP 55009785 A

TITLE: PREPARATION OF L-LYSINE BY FERMENTATION

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw	Desc	Image							

KMC

☐ 10. Document ID: JP 60083593 A

L7: Entry 10 of 13

File: DWPI

May 11, 1985

DERWENT-ACC-NO: 1985-150334

DERWENT-WEEK: 198525

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TITLE: L-Arginine prodn. by fermentation - using thiazolyl alanine-resistant brevivacterium or corynebacterium microorganisms

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw	Desc	Image							

KMC

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Terms	Documents
resistant adj5 L adj lysine same corynebacter\$	13

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**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 8 of 8 returned.**☐ 1. Document ID: US 20020155556 A1

L8: Entry 1 of 8

File: PGPB

Oct 24, 2002

PGPUB-DOCUMENT-NUMBER: 20020155556

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020155556 A1

TITLE: Method of producing target substance by fermentation

PUBLICATION-DATE: October 24, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Imaizumi, Akira	Kawasaki-shi		JP	
Usuda, Yoshihiro	Kawasaki-shi		JP	
Sugimoto, Shinichi	Kawasaki-shi		JP	

US-CL-CURRENT: [435/115](#); [435/252.33](#); [435/69.1](#)

<a href="#">Full</a>	<a href="#">Title</a>	<a href="#">Citation</a>	<a href="#">Front</a>	<a href="#">Review</a>	<a href="#">Classification</a>	<a href="#">Date</a>	<a href="#">Reference</a>	<a href="#">Sequences</a>	<a href="#">Attachments</a>	<a href="#">KIMC</a>
<a href="#">Draw</a>	<a href="#">Desc</a>	<a href="#">Image</a>								

☐ 2. Document ID: US 20020151700 A1

L8: Entry 2 of 8

File: PGPB

Oct 17, 2002

PGPUB-DOCUMENT-NUMBER: 20020151700

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020151700 A1

TITLE: Method to monitor a fermentation process

PUBLICATION-DATE: October 17, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Farwick, Mike	Bielefeld		DE	
Brehme, Jennifer	Bielefeld		DE	
Hermann, Thomas	Bielefeld		DE	
Bathe, Brigitte	Salzkotten		DE	
Marx, Achim	Bielefeld		DE	
Mockel, Bettina	Dusseldorf		DE	
Rieping, Mechthild	Bielefeld		DE	
Ermantraut, Eugen	Jena		DE	
Ellinger, Thomas	Jena		DE	
Huthmacher, Klaus	Gelnhausen		DE	
Pfefferle, Walter	Halle		DE	

US-CL-CURRENT: 536/23.2; 435/287.2, 435/6

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KWC

☐ 3. Document ID: US 20020025564 A1

L8: Entry 3 of 8

File: PGPB

Feb 28, 2002

PGPUB-DOCUMENT-NUMBER: 20020025564

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020025564 A1

TITLE: Method for producing basic amino acid

PUBLICATION-DATE: February 28, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Kobayashi, Masaki	Kawasaki-shi		JP	
Itoyama, Tsuyoshi	Kawasaki-shi		JP	
Mitani, Yukio	Tokyo		JP	
Usui, Naoki	Kawasaki-shi		JP	

US-CL-CURRENT: 435/106

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KWC

☐ 4. Document ID: US 5989875 A

L8: Entry 4 of 8

File: USPT

Nov 23, 1999

US-PAT-NO: 5989875

DOCUMENT-IDENTIFIER: US 5989875 A

TITLE: Method of process for producing L-lysine by fermentation

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KMC

☐ 5. Document ID: US 4346170 A

L8: Entry 5 of 8

File: USPT

Aug 24, 1982

US-PAT-NO: 4346170

DOCUMENT-IDENTIFIER: US 4346170 A

TITLE: Method for producing L-lysine by fermentation

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KMC

☐ 6. Document ID: JP 57094297 A

L8: Entry 6 of 8

File: JPAB

Jun 11, 1982

PUB-NO: JP357094297A

DOCUMENT-IDENTIFIER: JP 57094297 A

TITLE: PREPARATION OF L-LYSINE BY FERMENTATION

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KMC

☐ 7. Document ID: DE 3027922 A DE 3027922 C FR 2461749 A GB  
2055849 A GB 2055849 B JP 56018596 A US 4346170 A

L8: Entry 7 of 8

File: DWPI

Feb 12, 1981

DERWENT-ACC-NO: 1981-12007D

DERWENT-WEEK: 198108



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TITLE: L-lysine prodn. by fermentation - using escherichia mutant strain obtd. by insertion of lysine-prodn. DNA into hybrid plasmid and incorporation into host strain

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw	Desc	Image							

KWC

☐ 8. Document ID: GB 1258380 A CA 937183 A JP 73028078 B US  
3707441 A

L8: Entry 8 of 8

File: DWPI

DERWENT-ACC-NO: 1971-808665

DERWENT-WEEK: 197151

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TITLE: L-lysine prodn - by microbiological process under aerobic conditions

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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Terms	Documents
resistant adj2 L adj lysine same (corynebacter\$ or brevibacter\$ or Escherichia or bacillus)	8

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Terms	Documents
resistant adj2 L adj lysine same (corynebacter\$ or brevibacter\$ or Escherichia or bacillus)	8

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JPO Abstracts Database  
EPO Abstracts Database  
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IBM Technical Disclosure Bulletins

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